

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

MAR 0 9 2818

David Linder, Director of Operations Pollution Control Industries of Tennessee 5485 Victory Lane Millington, Tennessee 38053

SUBJ: RCRA Compliance Evaluation Inspection Pollution Control Industries of Tennessee

EPA Id No.: TND 000 772 186

Dear Mr. Linder:

On December 1-2, 2009, a Compliance Evaluation Inspection (CEI) was conducted by the United States Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation/Division of Solid Waste Management (TDEC/DSWM) at the Pollution Control Industries of Tennessee in Millington, Tennessee, to determine the facility's compliance status with the Resource Conservation and Recovery Act (RCRA). This RCRA CEI was an EPA lead inspection.

Enclosed is the EPA RCRA Site Inspection Report which indicates that violations of RCRA were discovered. A copy of this report has also been forwarded to TDEC.

If you have any questions regarding the inspection, please contact Héctor M. Danois, of my staff, by phone at (404) 562-8556 or by e-mail at danois.hector@epa.gov.

Sincerely,

Douglas C. McCurry, Chief

North Enforcement and Compliance Section RCRA Enforcement and Compliance Branch

all Theme

Enclosure

cc: Mike Apple, TDEC

Herb Nicholson, Memphis TDEC/DSWM



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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MAR 0 9 2010

Mr. Mike Apple, Director
Division of Solid Waste Management
Tennessee Department of Environment & Conservation
Fifth Floor, L & C Tower
401 Church Street
Nashville, Tennessee 37243-1535

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Sincerely,

All There for

Douglas C. McCurry, Chief

North Enforcement and Compliance Section RCRA Enforcement and Compliance Branch

Enclosure

## **RCRA** Inspection Report

# 1) <u>Inspector and Author of Report</u>

Hector M. Danois Environmental Engineer RCRA Enforcement and Compliance Branch EPA Region 4, AFC - 10<sup>th</sup> Floor 61 Forsyth Street Atlanta, Georgia 30303 (404) 562 - 8556

### 2) <u>Facility Information</u>

Pollution Control Industries of Tennessee 5485 Victory Lane Millington, Tennessee 38053

EPA Id No.: TND 000 772 186

## 3) Responsible Official

David Linder, Director of Operations Pollution Control Industries of Tennessee (901) 353-5291

### 4) <u>Inspection Participants</u>

David Linder Pollution Control Industries of Tennessee
Herb Nicholson Memphis Field Office-TDEC
Angela Horton Memphis Field Office-TDEC
Jason Simpson Memphis Field Office-TDEC
Mike Gay Memphis Field Office-TDEC
Hector Danois EPA Region 4

### 5) <u>Dates of Inspection</u>

December 1-2, 2009

## 6) Applicable Regulations

40 Code of Federal Regulations (CFR) Parts 260-279, Resource Conservation and Recovery Act (RCRA) Sections 3005 and 3007, TN <u>Hazardous Waste Management Act</u>, T.C.A. 68-212 part 1 & 3 and the <u>Used</u> Oil Collection Act of 1993, T.C.A. 68-21.

## 7) <u>Purpose of Inspection</u>

Conduct an unannounced U.S. Environmental Protection Agency (EPA) lead compliance evaluation inspection and determine the facility's compliance status with the Resource Conservation and Recovery Act (RCRA).

## 8) <u>Facility Description</u>

Pollution Control Industries (PCI) is a permitted Treatment, Storage and Disposal facility (TNHW 103). PCI is permitted to store (tanks, containers and miscellaneous units) and treat a wide range of solid waste and hazardous waste. They receive waste from off-site generators, including PCI's facility located in East Chicago, Indiana. PCI is a fuels blending, stabilization and non-hazardous solidification facility. PCI is located in northwestern Shelby County, in a primarily heavy industry, agricultural land and motor racetrack. PCI is approximately 36 acres with current operations and building within 6 acres that is surrounded by a 6 foot high chain link fence. The PCI employs 124 employees in 3 shifts working 24 hours, 5 days a week.

The facility was formerly owned by Chemical Waste Management (CWM), and operated by Advanced Environmental Technical Services. CWM was issued a permit (TNHW-016) for the treatment and storage of hazardous wastes by the Division on November 30, 1987. The ownership of CWM Chemical Services, Inc. was transferred to PCI, effective April 3, 1998.

PCI was subsequently issued a new hazardous waste permit on October 16, 2000. Hazardous and solid waste storage and treatment are governed under hazardous waste permit TNHW-103. The permit's current expiration date is October 16, 2010. This permit replaced hazardous waste permit TNHW-016.

PCI is permitted to store and treat the wastes in tanks, containers, and miscellaneous units. The facility's current primary treatment processes are stabilization, solidification, and fuel blending. All wastes are to be disposed of off-site. Wastes are primarily sent to either Subtitle D landfills or for energy recovery (such as at permitted hazardous waste cement kilns).

PCI is not permitted to dispose of any solid or hazardous waste on-site at the Millington facility. In addition to treating and storing wastes received from off-site generators, PCI is a large quantity generator (LQG) of hazardous waste. Hazardous wastes generated on-site are stored in containers at either a permitted area or a 90-day storage area. These wastes are shipped to an off-site facility for disposal.

## 9) <u>Findings</u>

On December 1, 2009, Héctor M. Danois, with EPA, along with Herb Nicholson, Angela Horton, Jason Simpson and Mike Gay with TDEC/DSWM arrived at the facility. At approximately 9:30 a.m., Mr. Linder received the inspectors. The inspectors introduced themselves, showed their credentials, and explained the purpose of the visit. The following areas were inspected:

#### **Unit 202**

This open metal building is where PCI has a loading dock area (Area A) that can store trailers, tankers, roll-offs, or drums. Container storage, sampling, and processing may occur in Area B. The area has curbed concrete floor sloped to sumps to maintain individual secondary containment for the five loading and unloading bays in Area B. No RCRA violations were noted during the inspection.

#### **Unit 203**

This is the container sampling and processing area, the unit opens to the receiving area of Unit 202. A firewall and fire doors separate this unit from Unit 204. All other sides of the unit building are closed. In this area, PCI has a Lab Storage Area where lab retakes are stored. The retakes are stored in three cabinets for two months for sampling confirmation. At the time of the inspection, the 90-day storage area was storing ten 55-gallon drums. All drums were closed, dated and labeled. Additionally an emergency spill kit was located onsite. No RCRA violations were noted during the inspection.

#### **Unit 204**

This metal building with concrete floors is the area where PCI stores containers in four separate rooms (A-Bay, B-Bay, C-Bay and D-Bay). The rooms are separated by firewalls and doors. Each room has four separate containments areas for segregation of containers. Each containment area has raised walkways, curbs, sumps and sloping concrete floors provide secondary containment. At the time of the inspection, the inspection team found a 55-gallon drum leak hazardous waste material (See Photo 1).

PCI failed to adhere to Permit condition TNHW-103 Subsection III.B. or 1200-01-11-.05(9)(b)[40 C.F.R. § 264.171]. This regulation require generators that if a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this part.

Additionally in a room designated as Q area, PCI keeps containers for materials that showed discrepancies during sampling. After re-sampling and determinations are made the drums are store in the Q area for 72 hours, before are rejected and returned or sent to treatment process.

#### <u>Unit 205</u>

This unit is a metal building that can accommodate one trailer, tanker or roll-off box at a time. Drums may be directly decanted to a tanker. The east side opens to a covered and contained loading/unloading dock. Secondary containment is a curbed concrete floor sloped to a sump. According to facility personnel, wastes from PCI's facility in East Chicago, Indiana are received at this unit.

#### **Unit 205A**

This unit was not constructed at the time of this inspection. This unit is to be a metal building that can accommodate two trailers, tankers, or roll-off boxes or combinations thereof at a time. It is to also accommodate drums to be decanted directly into a tanker. The north side is to be opened to a covered and contained loading/unloading dock. Secondary containment is to be a curbed concrete floor sloped to a sump.

#### **Unit 206**

This unit was not constructed at the time of this inspection. This unit is to be a metal building with reinforced concrete block perimeter walls. There are to be firewalls and doors separating this unit from other buildings. The unit is to have four separate rooms separated by firewalls and doors with each having four separate containment areas (total of 16 with 11 storage aisles) for segregation of incompatibles. Each containment area is to be sloped to individual sumps. Raised walkways, curbs, sumps, and sloping concrete floors are to provide secondary containment.

#### Unit 206A

This unit was not constructed at the time of this inspection. This unit is to be a metal building that can accommodate one trailer, tanker, or roll-off box at a time. Drums may be decanted directly into a tanker. The south side is to be open to a covered and contained loading/unloading dock. The unit is to have a firewall and a fire door between it and Unit 206. Secondary containment is to be a curbed concrete floor sloped to a sump.

#### Roll-offs Area

This is the area where PCI stores or stages roll-offs storing waste. At the time of the inspection, the area was storing approximately nine roll-offs onsite. All roll-offs were closed, labeled and dated. No RCRA violations were noted during the inspection.

#### Unit 207 - Mix Tank

This unit is an open metal building that contains a concrete pit or mix tank. No listed, D003 (reactive), and D012 through D043 (organic toxicity) waste may be managed in this unit. Wastes may be placed into the tank by either: 1) direct dumping the container contents into the tank using a specially equipped forklift; 2) pumping with a portable pump and hose from the container; 3) pumping or gravity flow from a tanker; 4) transferring solid wastes from roll-off boxes with the track hoe; or 5) discharging from the chute of the drum shredder. Treatment reagents or sawdust may be added via an auger feeder from a silo or from containers. The treated material is transferred from the mix tank into the roll-offs containers. The roll-offs stay in the area until the analytical results document the treatment was successful. If additional treatment is necessary, waste may be place back into the tank for additional treatment. No RCRA violations were noted during the inspection.

# Unit 207 - Outside Dry Containing Staging Area

These are areas in Unit 207 where PCI can additionally store certain type of waste. The areas, located outside to the north and west sides of the Unit 207 and with a maximum capacity of 50,000 gallons. The areas are used for staging or storing of containers of waste that contain no free liquid. Most of these wastes will be destined for processing in Unit 207. Containers may also be staged or stored in these areas for processing in Unit 212, as well as containers prior to offsite shipment or prior to other treatment management on-site. During the inspection, the inspection team noticed that the areas where PCI can store dry

containers were not clearly mark on the paved surface, so was difficult to determine the boundaries associated with these areas (See Photo 2).

PCI failed to adhere to Permit condition TNHW-103(D)1 Appendix 8. This permit condition requires that boundaries where PCI can store containers will be marked on the paved surface by painted lines.

Additionally, during a random search of containers the team noticed drums that were labeled flammable liquid. When the inspection team asked PCI to open one of the drums, the material stored in the drum was liquid (See Photo 3).

PCI failed to adhere to Permit condition TNHW-103(D)1 Appendix 8. This permit condition requires that containers stored Outside Dry Container Staging Area will not contain free liquids.

#### <u>Unit 208 – Tank Farm</u>

PCI is permitted to have ten storage tanks to store hazardous waste, but six tanks (T-001, T-002 ad T-007 through T-010) have not been constructed. Tanks T-003 through T-006 are in operation. The constructed tanks are vertical dish-bottom tanks, elevated above the floor on legs and are constructed with fixed roofs. The piping and ancillary equipment are constructed of carbon steel or comparable alloys. The secondary containment consists of reinforced concrete walls, floors and sumps all coated with a chemical-resistant coating. The tanks have a high-level alarm and light signal. Each tank has a pressure vacuum conservation vent that vents through a carbon absorption system to comply with RCRA organic air emissions. The system is designated to remove 95% of the organics. At the time of the inspection all pump, flanges and associated equipment were tag. No RCRA violations were noted during the inspection.

#### <u>Unit 208A – Tank Farm</u>

This unit is a covered area that contained a tanker truck for loading and unloading liquids or pumpable waste between containers (tanker, 55-gallon drums, etc.) and tanks for transfer or storage. The area had a secondary containment with a curbed concrete floor that is sloped to a sump.

At the time of the inspection, the area was storing eight 55-gallon drums of D002 waste, a 70-gallon drum of D001 and the tanker truck. All drums were dated, labeled and closed. No RCRA violations were noted during the inspection.

#### **Unit 209**

This unit was not constructed at the time of the inspection. This unit is to be a metal building and reinforced concrete block perimeter walls. There are to be firewalls and fire doors separating this unit from other buildings. The unit is to have four interior rooms separated by firewalls and doors with each having four separate containments areas (total of 16 with 11 storage aisles) for segregation of incompatibles. Each containment area is to slope to individual sumps. Raised walkways, curbs, sumps, and sloping concrete floors are to provide secondary containment. Four lab pack booths are to be located at the north end of each of the four interior rooms and are to be bermed separately. The lab pack booths may be used for consolidating and repackaging lab pack material and are to be separated by firewalls and fire doors. The four booths are to have independent exhaust air systems and automatic dry chemical fire suppression systems. Each system is to include explosive proof horns and lighting and a damper system to automatically close off access to the air discharged to the air treatment system in the event of a fire.

#### **Unit 210**

This unit was not constructed at the time of the inspection. This unit is to be a metal building that contains four loading/unloading dock areas, bulk container staging/storage areas, small container staging/storage areas and two dry shredders. Bulk container bays 1 and 2 are to have separate containment systems. Bulk container bays 3 and 4 are to have combined containment systems. Small container staging/storage areas are to be divided into two containment systems with one shredder located within each small container containment system. Concrete floor, curbs and sumps are to provide secondary containment for each area.

Shredder 1 (S1) is to be located within the small container staging/processing area and consist of a small container elevator, feed conveyor, a double gate air lock, a shredder hopper, a slow speed shear shredder, a rotary magnet, and auger catchment chamber. The entire system is to be sealed. Drums (typically 55-gallon) are to be loaded on the conveyor system to be moved to the rear of S1 at the base of the elevator. One drum is to be automatically loaded into the elevator and the drum lifted to the top of the S1. The airlock feed chamber door is to open and a hydraulic ram is used to push the drum into the airlock feed chamber. The door is to close creating a seal. Automatic nitrogen purge is to initiate until oxygen deficiency is achieved as verified by the control panel. Oxygen deficiency is to be maintained throughout the operational cycle.

The airlock feed chamber floor is to open allowing the drum to drop into the shredder chamber. If the control panel indicates that shredding has not occurred, a hydraulic feed ram is to activate to assist. Once shredded, material is to drop toward a nitrogen-purged screw auger catchment chamber at the base passing a rotary magnet removing the ferrous metal and releasing it into a container to be washed and shipped off-site. The remaining material is to drop to the bottom of the screw auger catchment chamber and to be conveyed to the top of the receiving container.

All displaced vapors are to be captured by a vapor control system and pass through dual carbon beds in series. Shredder 2 (S2) is to be located within the small container staging/processing area consisting of a receiving hopper, hopper shredder, and slow speed shear shredder. The entire system is to be sealed. Drums (typically 55-gallon) are to be emptied via a rotary forklift, lift table, or other method into the receiving hopper and the gate of the receiving hopper is to automatically close to create a seal. Automatic nitrogen purge is to initiate until oxygen deficiency is achieved as verified by the control panel. Oxygen deficiency is to be maintained throughout the operational cycle. The shredder is to initiate and the debris is to be pulled through utilizing the slow shearing action. If the control panel indicates that shredding has not occurred, a hydraulic feed ram is to be activated to assist. Once shredded, material is to drop into a nitrogen-purged receiving container. All displaced vapors are to be captured by the vapor control system and pass through dual carbon beds in series.

#### **Unit 211**

This unit was not constructed at the time of the inspection. The unit is to be a metal building with the south ends open consisting of six storage bays each with individual containment systems. Small containers roll-offs, dumps, trailers, and tankers may be managed in this unit. Secondary containments are to be concrete floors, curbs and sumps to provide secondary containment for the six bays.

#### Wash Bay

This is the area where PCI stores the universal waste containers. At the time of the inspection the area was storing three boxes of universal waste lamps, two 30-gallon drums of universal waste lamps, a box of universal waste batteries, a 55-drum and two 10-gallon drums of mercury waste. All containers were dated and labeled. No RCRA violations were noted during the inspection.

#### Lab

This is the on-site lab uses to conduct waste analysis (pH, oxidation, flashpoint,

moisture, metals, etc.) on all containers that come through the facility. At the time of the inspection, the lab was storing three 1-gallon satellite accumulation area (SAA) containers with liquid waste generated from different analytical instruments and two 1-gallon SAA containers storing personal protective equipment (PPE). The containers were closed and labeled. No RCRA violations were noted during the inspection.

# Unit 212 - Storage Area and Shredder/Hydrapulper

This is a metal building that contains storage area and Shredder/Hydrapulper equipment. This unit is authorized for storage, decanting to tankers, bulking in containers or roll-offs, repacking into containers, debris treatment, filtration/phase and component separation, and consolidation.

Shredder/Hydrapulper is an enclosed system, where drums containing solids or sludge are loaded on a conveyor. The drums are raised, two at the time, into an airlock chamber (using nitrogen) where the drums are shredded. Metal generated by the shredding of steel drums are electromagnetically separated from the shredder's exit-stream and diverted to a Shaker Screen. The Shaker Screen is used to remove to any significant liquid, sludge or solid material which may have adhered to metal remnants. The metal remnants are then diverted to an exempt Metal Wash Unit for further cleaning. This unit washes the pieces of metal using an organic solvent to clean the metal of residue that could not be removed by the Shaker Screen. The cleaned metal remnants are placed in roll-offs and shipped off-site to a metal recycler. An 18 inch auger helps remove the solids into a tote. Solids are shipped to cement kiln for fuel recycling. The sludge is particle sized and either sent to the hydrapulper or the liquid fuels are sent to the kiln. No RCRA violations were noted during the inspection.

#### Trailer Area

Located in the northwest corner of the facility the area was storing nine outbound tanker truck trailers. All trailers were closed, labeled and dated. No RCRA violations were noted during the inspection.

# Recordkeeping

Documents and records reviewed at and after the inspection included; annual reports, air emissions records, waste analysis plan, waste reduction plan, tank thickness, manifests, training documentation and certificates, contingency plan and daily/weekly inspection records for the hazardous waste storage area. No RCRA violations were noted during the inspection.

# 10) Signed

Hector M. Danois

**Environmental Engineer** 

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11) <u>Concurrence</u>

Doug C. McCurry

North Enforcement and Compliance Section RCRA Enforcement and Compliance Branch

3/5/2010

Date

# Attachment – Photo Logs

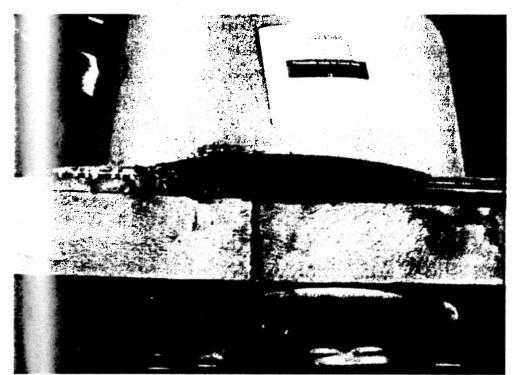


Photo 1 - Container leaking in Unit 204

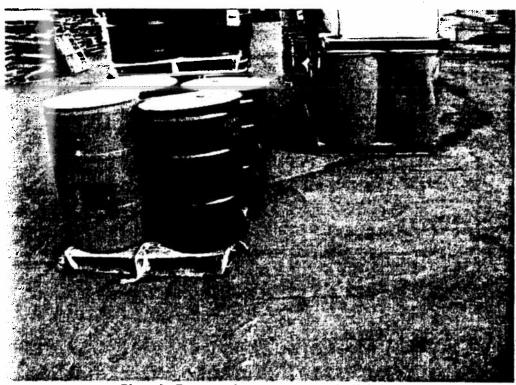


Photo 2 - Dry container storage area in Unit 207



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- M. Addition of the Contract